AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions and listings of claims in the application.

LISTING OF CLAIMS

1. (original) A moldable rubber composition comprising;

a rubber resin selected from the group consisting of natural rubber, synthetic rubber, and mixtures thereof;

a curing agent;

a silica filler; and

less than or equal to 5 phr of a non-petroleum oil,

wherein the non-petroleum oil comprises fatty acid side chains, wherein at least 50% of the fatty acid side chains have one or more sites of unsaturation.

2. (original) A composition according to Claim 1 comprising less than or equal to 3 phr non-petroleum oil.

3. (original) A composition according to claim 1, wherein the iodine number is greater than 50.

4. (original) A composition according to claim 1, wherein the iodine number is greater than 60.

5. (original) A composition according to claim 1, wherein at least 67% of the side chains have unsaturation.

6. (original) A composition according to claim 1, wherein the rubber resin comprises less than 50% by weight natural rubber.

7. (original) A composition according to claim 1, comprising a sulfur curing agent.

8. (original) A composition according to claim 1, comprising a peroxide curing agent.

9. (original) A composition according to claim 1, further comprising a metal compound selected from the group consisting of titanium with one or more alkoxy groups OR bonded to titanium, zirconium with one or more alkoxy groups OR bonded to zirconium, and mixtures thereof.

10. (original) A composition according to claim 9, wherein the metal compound is a chelate.

11. (original) A composition according to claim 9, wherein the metal compound comprises titanium.

12. (original) A composition according to claim 1, comprising essentially no silane coupling agent.

13. (original) A composition according to claim 6 where less than 75% by weight of the composition is from non-petroleum resources.

14. (original) A composition according to claim 1 wherein the rubber component contains greater than 50% of rubber selected from the group comprising butyl rubber, halogenated butyl rubber, halogenated rubbers, millable urethanes and mixtures thereof and the non-petroleum oil contains hydroxyl groups.

15. (original) A composition according to claim 14 wherein the non-petroleum oil is comprised of castor oil.

16. (original) A molded rubber article comprising;
a cured rubber component;
silica filler; and

less than or equal to 5 phr of a non-petroleum oil comprising fatty acid side chains, wherein at least 50% of the fatty acid side chains have one or more sites of unsaturation,

wherein the non-petroleum oil exists in a form at least partially incorporated into the cured rubber component.

17. (original) An article according to claim 16, comprising less than or equal to 3 phr oil.

18. (original) An article according to claim 16, comprising 10 to 60 phr filler.

19. (original) An article according to claim 16, comprising essentially no silane coupling agent.

20 (original) An article according to claim 16, wherein the cured rubber component is sulfur crosslinked.

21. (original) An article according to claim 16, wherein the cured rubber component comprises less than 50% by weight cured natural rubber.

22. (original) An article according to claim 16, wherein the cured rubber component comprises less than 20% by weight cured natural rubber.

23. (original) An article according to claim 16, wherein the cured rubber component comprises less than 10% by weight cured natural rubber.

24. (original) An article according to claim 16, further comprising a metal compound selected from the group of titanium with one or more alkoxy OR bonded to titanium, zirconium with one or more alkoxy groups OR bonded to zirconium, and mixtures thereof.

25. (original) An article according to claim 24, wherein the metal compound is a chelate.

26. An article according to claim 24, wherein the metal compound comprises titanium.

27. (original) A rubber shoe sole according to claim 16.

28. (original) A method for producing a rubber footwear component comprising heating a moldable rubber composition at a temperature and for a time sufficient to effect cure, wherein the rubber composition comprises;

natural or synthetic rubber;

a sulfur crosslinker;

silica filler; and

less than or equal to 5 phr non-petroleum oil comprising fatty acid side chains, wherein at least 50% of the fatty acid side chains have one or more sites of unsaturation.

29. (original) A method according to claim 28, wherein the rubber composition further comprises a metal compound selected from the group of titanium with one or more alkoxy OR bonded to titanium, zirconium with one or more alkoxy groups OR bonded to zirconium, and mixtures thereof.

30. (original) A method according to claim 28, wherein the rubber composition is essentially free of silane coupling agents.

31. (original) A method according to claim 28, wherein the iodine number of the oil is greater than 100.

32. (original) A method according to claim 28, wherein the iodine number of oil is greater than 120.

33. (original) A method according to claim 28, wherein the rubber composition comprises less than or equal to 3 phr oil.

34. (original) A shoe comprising an outsole made by a process according to claim to 28.

35. (original) A shoe comprising a molded outsole, wherein the outsole comprises:

silica filler;

a cured rubber component; and

less than or equal to 5 phr non-petroleum oil comprising fatty acid side chains, wherein at least 50% of the fatty acid side chains have one or more sites of unsaturation,

wherein the oil is at least in part covalently incorporated into the cured rubber component.

36. (original) A shoe according to claim 35, wherein the non-petroleum oil has an iodine number greater than 50.

37. (original) A shoe according to claim 35, wherein the non-petroleum oil has an iodine number greater than 60.

38. (original) A shoe according to claim 35, comprising less than 75% by weight of components derived from non-petroleum resources.

39. (original) A shoe according to claim 35, wherein the cured-rubber component comprises less than 50% by weight natural rubber.

40. (original) A shoe according to claim 35, wherein the cured rubber component comprises less than 20% by weight natural rubber.

41. (original) A shoe according to claim 35, wherein the cured rubber component comprises less than 10% by weight natural rubber.

42. (original) A shoe according to claim 35, wherein the outsole comprises up to 10 phr rubber regrind.

43. (original) A shoe according to claim 35, wherein the outsole comprises up to 5 phr rubber regrind.

44. (original) A shoe comprising a cured rubber sole, wherein the rubber sole is made by curing a moldable rubber composition comprising

a rubber resin selected from the group consisting of natural rubber, synthetic rubber, and mixtures thereof;

a sulfur-containing crosslinking agent;

a non-petroleum based process oil; and

a rubber accelerator that generates non-carcinogenic nitrosamines.

45. (original) A shoe according to claim 44, wherein the moldable rubber composition comprises less than or equal to 5 phr of the non-petroleum based process oil.

46. (original) A shoe according to claim 44, wherein the oil comprises fatty acid chains, wherein at least 50% of the side chains comprise at least one unsaturation site.

47. (original) A shoe according to claim 44, wherein at least 67% of side chains have an unsaturation site.

48. (original) A shoe according to claim 44, wherein the rubber accelerator comprises tetrabenzylthiuram disulfide.

49. (original) A shoe according to claim 44, wherein the process oil comprises a vegetable oil.

50. (original) A shoe according to claim 44, wherein the rubber composition further comprises silica filler.

51. (original) A shoe according to claim 44, wherein the moldable rubber composition comprises essentially no silane coupling agents.

52. (original) A shoe according to claim 44, wherein the moldable rubber composition further comprises up to 10 phr rubber regrind.

53. (original) A shoe according to claim 44, wherein the moldable rubber composition further comprises up to 5 phr rubber regrind.

54. (currently amended) A moldable rubber composition, comprising

a rubber resin selected from the group consisting of natural rubber, synthetic rubber, and mixtures thereof;

0.1 – 25 phr of vegetable oil having an iodine number greater than 50;

0.1 – 10 phr ~~S~~ sulfur;

0.01 – 2 phr ~~TBzTD~~ tetrabenzylthiuram disulfide;

0.01 – 10 phr ~~MBTS~~ 2,2'-dithiobisbenzothiazole;

1 -100 phr reinforcing filler;

0.1 – 25 phr rubber regrind; and

no silane coupling agents.

55. (original) A composition according to claim 54, wherein the vegetable oil comprises fatty acid side chains, wherein 50% or more of the side chains comprise more than one site of unsaturation.

56. (original) A composition according to claim 54, comprising 0.1 - 5 phr vegetable oil.

57. (original) A composition according to claim 54, comprising 0.1 – 3 phr vegetable oil.

58. (original) A composition according to claim 54, comprising 0.1 – 2 phr vegetable oil.

59. (original) A molded rubber product, made by molding and curing a composition according to claim 54.

60. (original) A shoe, comprising an outsole according to claim 59.